



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,423	09/10/2003	Seongukk Kim	YO12-002	5799
21567	7590	01/11/2006	EXAMINER	
WELLS ST. JOHN P.S. 601 W. FIRST AVENUE, SUITE 1300 SPOKANE, WA 99201			GOKHALE, SAMEER K	
			ART UNIT	PAPER NUMBER
			2673	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/660,423	<b>Applicant(s)</b> KIM ET AL.	
	<b>Examiner</b> Sameer K. Gokhale	<b>Art Unit</b> 2673	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*By*

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-10, claim 1 includes the phrase "a rotational frame (a control printed circuit board)" on line 5 of the claim. This phrase renders the claim indefinite because it is unclear whether or not "a control printed circuit board" is part of the claimed invention.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1,2,4,6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Molinaroli (US 6,265,984) in view of Kowalewski (US 6,856,303), and further in view of Jobs et al. (US 6,819,550) (hereafter "Jobs").

Regarding claim 1, Molinaroli teaches a rotational information display device (Fig. 18) provided with a housing (Fig. 18, item 78), a motor installed in the housing (Fig. 18, item 74) and rotationally driven by a commercial power supplied from outside (Fig. 18, item 130), a rotational frame (Fig. 18, item 125) mounted on a rotational axis of the motor with cooperating with the rotational drive of the motor (see Fig. 18) and a plurality of single color light emitting diodes (Fig. 18, items 12) mounted on the rotational frame for displaying a three dimensional image and character in response to an afterimage effect during the rotation of the rotational frame (see col. 3, lines 46-50), which comprises: a personal computer connection means connected to a personal computer (see col. 8, lines 1-6) by forming on a bottom portion of the housing (see Fig. 18, it is inherent that the personal computer connection taught by Molinaroli must be formed at the bottom portion of the housing since the top portion contains moving parts); a wireless communication means for processing (see col. 15, lines 65-67, where it is inherent that the infrared receiver is used to receive wireless communications) so as to transmit an input from the personal computer through the personal computer connection means to a control means through a wireless communication (see col. 8, lines 3-5, where computer interfacing can be performed through the infrared means); a control means (Fig. 18, item 13) provided on the rotational frame for controlling outputs of a three dimensional solid shape and a graphic image or a character (see col. 15, lines 59-60) based on an input; a storage means (Fig. 18, item 22) provided on the rotational frame for temporally storing an input(see col. 15, lines 63-65); a three dimensional representation means, provided thereon a plurality of light sources arranged in the form

of arch (see Fig. 18) so as to perform a three dimensional spherical shape of information display during the rotation, for displaying a three dimensional solid shape (see Fig. 18, it is inherent that the rotation will form a three-dimensional spherical shape); an image/character representation means, provided thereon a plurality of light sources arranged in the form of a straight line, for displaying a graphic image or character (see Fig. 18, where it is inherent that viewing the LEDs from the side will show the light sources arranged in a straight line); a voice output means for amplifying a voice signal (Fig. 17, item 23, see col. 15, lines 3-4, and col. 15, lines 26-27); and a power supply printed circuit board formed between a top portion of the motor and the rotational frame (Fig. 18, item 133, see col. 15, lines 58-59), provided with the wireless communication means (Fig. 18, item 18, see col. 15, lines 65-67), for supplying an external commercial power applied from a power jack provided on the bottom portion of the housing to said each means (Fig. 18, item 130).

However, Molinaroli does not teach receiving a messenger change status or data for a personal alarm set content from the personal computer; a voice output means outputted from a speaker terminal of the personal computer formed on a bottom portion of the housing with connecting to a speaker jack; nor a voice output means located on a printed circuit board.

However, Kowalewski does teach a display device comprising receiving a personal alarm set content from the personal computer (see col. 3, lines 9-12, and lines 25-27, where the ability to set a clock is the equivalent to setting a personal alarm event). Therefore, it would have been obvious to one of ordinary skill in the art at the

Art Unit: 2673

time of the invention to incorporate the teachings of Kowalewski in the teaching of Molinaroli by adding the set clock feature of Kowaleski's display device to the personal computer attached to Molinaroli's display device. The motivation for combining these inventions is to add the features of a clock to the display device, which were well known at the time of the invention.

However, Molinaroli in view of Kowalewski still fails to teach a voice output means outputted from a speaker terminal of the personal computer formed on a bottom portion of the housing with connecting to a speaker jack. However, Jobs teaches a display device comprising a speaker terminal of the personal computer formed on a bottom portion of the housing with connecting to a speaker jack (see col. 41, lines 12-17). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Jobs in the teaching of Molinaroli by modifying Molinaroli's display device to include the standard speaker jack used in Jobs' display device. The motivation for combining these inventions is to allow a standard audio input, which was well known at the time of the invention, to be available on a display device.

However, Molinaroli in view of Kowalewski and Jobs still fails to teach a voice output means located on a printed circuit board. However, it would have been obvious to a person of ordinary skill in the art to locate the voice output means on the printed circuit board since such a modification would have involved a mere change in the location of a component. Applicants have not disclosed that the particular position of the voice output means solves any stated problem, provides an advantage or is used for

Art Unit: 2673

any particular purpose. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the position of the voice output means disposed either as shown in (Fig. 17, item 23) of Molinaroli or as recited in these claims because the voice output means ability to perform its function is not effected by its location. Further, a change in location is generally recognized as being within the level of ordinary skill in the art, see In re Japiske, 86 USPQ 70 (CCPA 1950). Therefore, it would have been obvious to a person of ordinary skill in this art to modify the Rand reference to obtain the invention as specified in the claim above.

Regarding claim 2, Molinaroli further teaches a rotational information display device wherein the personal computer connection means includes a universal serial bus (USB) port (see col. 8, lines 3-5).

Regarding claim 4, Molinaroli further teaches a rotational information display device, wherein the plurality of light sources incorporated into the three dimensional representation means and the image/character representation means includes a plurality of surface mount device (SMD) light emitting diodes capable of combining three primary colors (R, G and B) (see col. 24, lines 11-13, where it is inherent that "LEDs that change color" includes three primary colors).

Regarding claims 6 and 7, Kowalewski further teaches a rotational information display device, wherein the plurality of light sources incorporated into the

Art Unit: 2673

image/character representation means displays an e-mail notice, a user's alarm setting or a timer setting content of the personal computer inputted through the personal computer connection means through an image or a character (see col. 3, lines 9-12, and lines 25-27, where the ability to set a clock is the equivalent to setting a personal alarm event).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Molinaroli in view of Kowalewski in further view of Jobs, in further view of an obvious location choice, and in further view of Official Notice.

Molinaroli in view of Kowalewski in further view of Jobs and in further view of an obvious location choice teaches the limitations of claim 1 as discussed above. However, it does not teach a device wherein the personal computer connection means includes IEEE1394 port. Official Notice is taken that both the concept and the advantages of providing an IEEE 1394 port for a computer connection are well-known and expected in the art. It would have been obvious to have included the IEEE 1394 port in the prior art device referred to in claim 1 as this port is known to provide higher data rate capability between two devices.

6.. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Molinaroli in view of Kowalewski and Jobs and further in view Remitz (US 6,433,761).

Regarding claim 9-10, Molinaroli further teaches a device where transmitting infrared ray sensors are arranged on a top portion of the power supply printed circuit

Art Unit: 2673

board (see col. 15, line 67 through col. 16, line 3) however Molinaroli does not teach a device where the plurality of transmitting infrared ray sensors are arranged in the form of circle by an equal distance in response to a rotational orbit of the receiving infrared ray sensor.

However, Remitz does teach a device where the plurality of transmitting infrared ray sensors is arranged in the form of circle by an equal distance in response to a rotational orbit of the receiving infrared ray sensor (see Fig. 16, and see col. 12, lines 46-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Remitz in the device of Molinaroli in order to have circular arrangement of infrared ray sensors because such an arrangement always ensures that it is possible to both transmit and receive from the infrared sensors.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wang (US 6,639,571) teaches a rotating display with wireless communications means. Leja (US 6,816,137) teaches a rotating display with an arch shape. Nobile et al. (US 5,057,827) teaches a rotating display with an arch shape.

Art Unit: 2673


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sameer K. Gokhale whose telephone number is (571) 272-5553. The examiner can normally be reached on M-F 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKG  
January 5, 2006

Sameer Gokhale  
Examiner  
Art Unit 2673



**JIMMY NGUYEN**  
**PRIMARY EXAMINER**